

EXHIBIT 64

**Redacted Excerpts from the
Second Deposition of Dr. Hal
Singer**

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA

- - -

CUNG LE, NATHAN QUARRY, JON: CIVIL ACTION
FITCH, BRANDON VERA, LUIS :
JAVIER VAZQUEZ, and KYLE :
KLINGSBURY on behalf of :
themselves an others :
Similarly situated, :
Plaintiffs : CASE NO.
: 2:15-cv-01045-RFB
vs. : (PAL)
:
ZUFFA, LLC d/b/a ULTIMATE :
FIGHTING CHAMPIONSHIP and :
UFC, :
Defendants :

- - -

Tuesday, January 23, 2018
DAY 2

- - -

Continuation of videotaped
deposition of HAL J. SINGER, Ph.D., taken
pursuant to notice, was held at the
offices of BERGER & MONTAGUE, P.C., 1622
Locust Street, Philadelphia, PA 19103,
commencing at 10:19 a.m., on the above
date, before Lori A. Zabielski, a
Registered Professional Reporter and
Notary Public in and for the Commonwealth
of Pennsylvania.

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1 carve-out for a certain set of contracts,
2 but you would have to make sure that
3 those contracts don't account for too
4 large of a share of a market.

5 There are lots of ways that
6 you could restructure the contract, and I
7 have -- of course, I have opinions as to
8 how it could be done to come into
9 compliance with, say, a 30 percent
10 foreclosure requirement.

11 Q. All right. And at this
12 point, following your rebuttal report,
13 you are still, depending on your analysis
14 about where the Court draws the line as
15 to what's an exclusionary arrangement.

16 Am I correct about that?

17 MR. CRAMER: Objection to
18 form.

19 THE WITNESS: I think that
20 that ultimately would fall to the
21 fact-finder. I have tried to
22 inform the decision-making based
23 on my experience, my reading of
24 other cases, other economic

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1 articles and, of course, most
2 importantly, I go back to this,
3 the average career length of a
4 fighter. I think that all those
5 things should inform what the line
6 should be.

7 I have tried to -- I have
8 tried to offer what I think would
9 be a fair number. I have -- in
10 fact, in this report, I have
11 pointed to the duration in Zuffa's
12 contracts when it had less market
13 power than it does now as what I
14 think would be a reasonable proxy
15 for the duration of the contract.

16 BY MR. ISAACSON:

17 Q. All right. And just to make
18 sure I understand where you are now at
19 the end of your rebuttal report, if the
20 Court were to determine that contracts --
21 exclusive contracts of one year or more
22 were exclusionary, would that -- if --
23 would an appropriate but-for world
24 include one-year contracts or less, plus

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1 some other parameters or some other
2 possible parameters, as Zuffa said, and
3 that would result in a foreclosure share
4 of 30 percent or lower?

5 MR. CRAMER: Objection to
6 form.

7 THE WITNESS: Well, I think
8 we are close. I think what I am
9 getting tripped up on is you said
10 one year or more would be
11 exclusionary. And then, of
12 course, if you did it at one year,
13 you wouldn't be in compliance.
14 But how about can we try a
15 different hypothetical or did
16 you -- maybe you meant to do that.

17 BY MR. ISAACSON:

18 Q. Well, no. I was not trying
19 to put significance of 365 days versus
20 366.

21 But if the Court drew the
22 line at exclusionary contract of
23 something that's more than one year and
24 instead, that a one-year contract or less

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1 was not exclusionary --

2 A. Got it. Got it. Sorry.
3 Then I didn't hear that the first time,
4 but I am with you now.

5 Q. Okay. With that assumption,
6 in your opinion, would an appropriate
7 but-for world be contracts that were one
8 year or less in duration, plus some other
9 potential parameters that you pointed to
10 in your report and that but-for world
11 result in foreclosure shares of 30
12 percent or less?

13 A. Well, it's certainly getting
14 closer to what I think would be the
15 appropriate but-for world. It seems like
16 we could -- we could restructure the
17 contracts by reducing the duration, such
18 that when I went back and calculated
19 foreclosure, it would no longer be in
20 excess of 30 percent, and I think that
21 getting the duration below what the
22 fact-finder deem exclusionary and in
23 violation of the antitrust laws is a
24 smart way to go about it.

<p style="text-align: right;">Page 383</p> <p>1 Q. And from that -- and from 2 that, your models -- your damages models 3 and your second impact model would 4 estimate -- would estimate damages impact 5 from that but-for world? 6 MR. CRAMER: Objection to 7 form. 8 Go ahead. 9 THE WITNESS: If you give me 10 a but-for foreclosure share, I can 11 tell you what the -- what the -- 12 how much wages would go up by. 13 BY MR. ISAACSON: 14 Q. All right. Now, if the 15 Court were to rule that an exclusionary 16 contract is over two years and it's not 17 exclusionary, it's two years or less, if 18 you -- would an appropriate but-for world 19 then be contracts that were two years or 20 less, plus some other parameters, and 21 that would achieve a foreclosure share of 22 30 percent or less? 23 MR. CRAMER: I am going to 24 object to the extent that this</p>	<p style="text-align: right;">Page 385</p> <p>1 is exclusionary and in the first 2 question, that they ruled that above one 3 year was exclusionary. Everything else 4 -- everything else is the same. 5 MR. CRAMER: Same objection. 6 BY MR. ISAACSON: 7 Q. You would still -- if Zuffa 8 moved its contracts down to two years or 9 less, that would achieve foreclosure 10 shares of 30 percent or less? 11 A. I think that if we draw the 12 line, if one were to draw the line at 25 13 months and if -- and if all of the 14 contracts came in at 24 months, then it's 15 almost tautological. If that's how we 16 define foreclosure, then the foreclosure 17 would come in at less than 30 percent. 18 Q. And in that situation, you 19 would reach the same conclusion as to the 20 amount of damages and your second impact 21 analysis -- second impact model would 22 remain the same? 23 MR. CRAMER: Objection to 24 form, incomplete hypothetical,</p>
<p style="text-align: right;">Page 384</p> <p>1 calls for a legal conclusion. 2 But go ahead and answer, if 3 you understand the question. 4 THE WITNESS: Let me -- it 5 was a two-parter and let me take 6 the second part, which is probably 7 easier. And that is, would it -- 8 would it get you to a foreclosure 9 share below 30 percent? And I 10 think that by the construction of 11 your hypothetical, it would, if I 12 understood it correctly. You are 13 saying the Court deems anything in 14 excess of 24 months -- 15 MR. ISAACSON: Right. 16 THE WITNESS: -- to be 17 exclusionary -- let me finish -- 18 and you asked me to posit a world 19 in which the contracts were 20 exactly 24 months. 21 BY MR. ISAACSON: 22 Q. My intent is this question 23 two is the same as the last question. If 24 the Court has ruled that above two years</p>	<p style="text-align: right;">Page 386</p> <p>1 calls for a legal conclusion. 2 THE WITNESS: I want to 3 think about it a little more, but 4 sitting here, it's not -- it's not 5 obvious how I would change my 6 impact model or damages model 7 based on that hypothetical. I 8 probably would want to think about 9 it a little more. 10 But my -- what's giving me 11 some reservation is that -- I 12 wouldn't draw the line at 24. I 13 think the 24 represents too much 14 of a fighter's life span or career 15 span. 16 And so that -- while it 17 would be a significant improvement 18 over where things are today, it's 19 conceivable that a movement 20 from 36, roughly where we are 21 today, to 24, would it engender 22 different competitive effects than 23 a movement from 36 to 12? I mean, 24 certainly at 12, the market is</p>

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1 more open, there is more worker
2 mobility.

3 Whether or not my model can
4 accommodate that distinction, I
5 would want to think about it some
6 more. I just haven't thought
7 about it yet.

8 BY MR. ISAACSON:

9 Q. Looking at paragraph 198,
10 there is a couple things you have listed
11 in your plausible but-for world, the
12 third of which is clauses that allow
13 fighters enhanced mobility.

14 What do you mean by that?

15 A. I guess since I have already
16 listed right-to-match, I would certainly
17 include right-to-match in that. But I am
18 thinking of the other -- the other
19 clauses that are extending the duration
20 or otherwise, tying up or sewing up of
21 fighters with Zuffa.

22 Q. And the various tolling
23 provisions?

24 A. Correct. Tolling or

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1 exclusive -- the exclusive provision. I
2 mean, we could -- we could go through
3 each one, but anything that --

4 Q. I would rather not.

5 A. Okay.

6 MR. CRAMER: Were you done
7 with your answer? Anything that
8 you were about to say.

9 THE WITNESS: Yeah, anything
10 that extends the duration or
11 otherwise lessens mobility.

12 BY MR. ISAACSON:

13 Q. Okay. So but when you are
14 saying a plausible but-for world includes
15 clauses that allow fighters enhanced
16 mobility, what are you referring to?

17 MR. CRAMER: Asked and
18 answered.

19 BY MR. ISAACSON:

20 Q. For example, are you
21 referring to eliminating all of those
22 tolling restrictions that you have
23 pointed to or something less? I am
24 trying to get an idea of what you are --

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1 what you are doing here.

2 MR. CRAMER: Asked and
3 answered.

4 THE WITNESS: I am referring
5 to any of the restrictions. I am
6 not -- I am saying that it would
7 be plausible that most, if not
8 all, of them would go away. It's
9 conceivable that some would stick
10 around. But I think that what I
11 am trying to capture is a world in
12 which -- in which fighters have
13 greater mobility.

14 BY MR. ISAACSON:

15 Q. So when you are referring to
16 clauses that allow fighters enhanced
17 mobility, are you assuming that most or
18 all of the tolling provisions go away?

19 A. If those tolling provisions
20 have the effect of extending the duration
21 of the contracts beyond, say, 12 months,
22 then I think that in a more open and
23 competitive environment, those tolling
24 restrictions would likely go away.

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1 Q. All right. So by clauses
2 that allow fighters enhanced mobility,
3 you are thinking of tolling provisions
4 that have the effect of extending the
5 duration of the contracts beyond 12
6 months?

7 A. Correct.

8 Q. And in your plausible
9 but-for world, all of those tolling
10 provisions would go away, most of them?

11 A. I think I gave you an
12 example where I could conceive of a
13 champion's clause staying around but
14 effectively being negated by virtue of
15 other more mobility. I think the point
16 that I am trying to make here, just so
17 that it's clear if it wasn't, is that I
18 am trying to give some granularity to
19 what Zuffa's most likely or most
20 plausible contract would be in a but-for
21 world, and given the -- given the record
22 evidence, this is the best that I can do
23 at trying to give some granularity to
24 that contract.

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1 Without going back over your
2 answers, have your opinions on that
3 changed from the first deposition?

4 MR. CRAMER: Objection to
5 form.

6 You can answer.

7 THE WITNESS: No, my
8 opinions haven't changed on that.
9 BY MR. ISAACSON:

10 Q. Your plausible but-for world
11 in paragraph 198 doesn't mention the
12 ancillary rights provision.

13 Does the ancillary rights
14 provision exist in your but-for world?

15 A. If it's -- if it's part of
16 the challenged conduct -- I am just going
17 to say something that's tautological. If
18 it's part of the challenged conduct, then
19 I think it most appropriately leaves in
20 the but-for world.

21 But I don't think that I --
22 in this section, just by memory, I don't
23 recall finding what a -- sorry -- what a
24 smaller rival does with respect to the

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1 ancillary rights provision or what Zuffa
2 did with respect to ancillary rights
3 provision when it had less market power.

4 So I don't think that in the
5 rebuttal report I gave any kind of
6 specificity or granularity with respect
7 to that provision, and I am reluctant to
8 offer anything new today.

9 Q. All right. This is purely a
10 grammatical question. You said: I think
11 it most appropriately leaves in the
12 but-for world.

13 By that, do you mean that
14 the ancillary rights provision most
15 appropriately is no longer in existence
16 in the but-for world?

17 MR. CRAMER: Misstates the
18 testimony.

19 THE WITNESS: I think if
20 it's part of the challenged
21 conduct and if plaintiffs are
22 including that in the challenged
23 conduct, then we are -- as
24 economists, what we are trying to

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1 do is model a world in which the
2 challenged conduct is absent.

3 BY MR. ISAACSON:

4 Q. And in your but-for world,
5 is Zuffa still able to contract for some
6 identity rights?

7 A. I don't think that there is
8 anything that I have written or read that
9 would suggest that it couldn't contract
10 for identity rights.

11 Q. And in your but-for world,
12 can Zuffa contract for the identity
13 rights of a fighter for one specific bout
14 in perpetuity?

15 A. I don't think that I have
16 offered an opinion with that kind of
17 granularity, and I don't think that I am
18 prepared to say that it couldn't or could
19 in a but-for world, sitting here.

20 Q. All right. Does the but-for
21 world you describe in your rebuttal
22 report include the sponsorship and
23 endorsement clauses?

24 MR. CRAMER: Objection to

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1 form.

2 THE WITNESS: There are
3 certain aspects of the sponsorship
4 arrangement, in particular what I
5 have referred to as the
6 sponsorship tax, that I thought
7 were anticompetitive in my report.
8 And so I would be loathed to say
9 that we ought to just look the
10 other way with respect to that
11 one.

12 But at the end of the day, I
13 don't -- I don't think that I am
14 offering a firm opinion as to --
15 as to the nature of those aspects
16 of the agreement.

17 BY MR. ISAACSON:

18 Q. So if hypothetically Zuffa
19 was broadcasting on Fox television and it
20 prohibited a fighter from wearing an ESPN
21 logo on their shorts, you wouldn't have
22 an opinion -- or you wouldn't have an
23 opinion one way or the other as to
24 whether that's in your but-for world; is

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1 that fair?

2 A. I haven't expressed an
3 opinion. It seems to me a restriction of
4 that nature could be consistent with a --
5 with a lower foreclosure share, and so as
6 an economist, remember, I go back -- my
7 model turns on the foreclosure share.
8 And so that's how I would attempt to
9 answer that question in the first
10 instance. And I don't think that I -- my
11 model or anything that I have written or
12 read can inform in any kind of
13 intelligent way an answer to that
14 question.

15 Q. Okay. The -- in looking,
16 again, at the substantially shorter
17 duration fighter contracts of one year or
18 less, does that -- does that put any
19 limit on Zuffa re-signing or extending
20 the contract before the year expires in
21 exchange for paying the fighter more
22 money?

23 A. Well, I think that the
24 plaintiffs are complaining that Zuffa is

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1 strategically using certain provisions of
2 the contract to lock fighters into
3 effectively perpetual extensions when
4 they want them. And given that that is
5 part of the challenged conduct, I
6 would -- I would at least hope that if we
7 were to rewrite these in a way that they
8 were in compliance with the antitrust
9 laws, that that sort of gamesmanship
10 would be -- would be either disallowed or
11 much harder to engage in.

12 Q. Right. But in your opinion,
13 would those rewrite of the contracts
14 prohibit Zuffa from simply offering
15 fighters more money to extend the
16 contract beyond one year?

17 MR. CRAMER: Incomplete
18 hypothetical.

19 THE WITNESS: I don't think
20 that I have an opinion on that.

21 BY MR. ISAACSON:

22 Q. And if Zuffa did
23 successfully extend the contracts beyond
24 one year by simply paying the fighters

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1 more money and did that with the same
2 amount of fighters as today, have two- or
3 three-year contracts, would that be
4 anticompetitive?

5 MR. CRAMER: Incomplete
6 hypothetical, form.

7 THE WITNESS: Well, when you
8 say did it the same as today, I
9 mean --

10 BY MR. ISAACSON:

11 Q. The same amount, same
12 numbers.

13 MR. CRAMER: Objection to
14 form, incomplete hypothetical.

15 THE WITNESS: I think I
16 would need more specificity in the
17 hypothetical. But if Zuffa
18 engaged in some of the same
19 tactics that it did today to
20 secure extension, such as refusing
21 to either give a fighter a fight
22 or giving the fighter an
23 inappropriate match-up as a
24 punishment for not extending, I

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1 think that -- I think that that --
2 that is part of the challenged
3 conduct and I think that those
4 sorts of tactics would be absent
5 in a but-for world.

6 BY MR. ISAACSON:

7 Q. Okay. But all I am focused
8 on is if Zuffa pays more money to extend
9 the contract, not the other -- not the
10 other things you are pointing to.

11 A. I hear you.

12 Q. If Zuffa did that and
13 extended these contracts to the point
14 where they had the same effective
15 duration as the contracts have today,
16 would that have an anticompetitive effect
17 in your view?

18 MR. CRAMER: Objection to
19 form, incomplete hypothetical.

20 THE WITNESS: I mean, the
21 way that I am hearing the question
22 is that if Zuffa were to behave
23 competitively, and that is compete
24 on the merits, and keep fighters

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1 with higher payments as opposed to
2 the exclusionary provisions, you
3 know, would that competition on
4 the merits be barred? And I would
5 say that most likely not. If it's
6 not part of the challenged
7 conduct, then I think that it
8 sticks around in the but-for
9 world.

10 BY MR. ISAACSON:

11 Q. And if Zuffa offered
12 fighters contracts of one year or less
13 and the fighters then bargained on their
14 own behalf for longer contracts, is that
15 permitted in the but-for world?

16 MR. CRAMER: Incomplete
17 hypothetical.

18 THE WITNESS: I am loathed
19 to say that the economic model
20 permits or disallows anything.
21 The economic model requires, as
22 its input, foreclosure share. And
23 what we are trying to do now in
24 this rebuttal report is to give

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1 more flavor or more granularity to
2 what a but-for world would look
3 like consistent with that lower
4 foreclosure share.

5 And so when you ask me a
6 question like this, it's not --
7 it's not obvious how with that --
8 with those ground rules how I can
9 rule in or rule out certain
10 aspects, unless they are obviously
11 part of the challenged conduct.

12 BY MR. ISAACSON:

13 Q. I want to go over this again
14 because I don't understand your answer.

15 A. Okay.

16 Q. The -- you have written that
17 the plausible but-for world would have
18 fighter contracts of one year or less.

19 Is that a result to have to
20 end up one year or less, even if fighters
21 ask for contracts greater than one year?

22 MR. CRAMER: Objection to
23 form. Do you mean contracts
24 exactly like the contracts that

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1 exist today or guaranteed
2 contracts? Or -- incomplete
3 hypothetical. You need to
4 specify.

5 MR. ISAACSON: You are doing
6 speaking objections now. So...

7 MR. CRAMER: You are asking
8 unfair and incomplete questions
9 that are vague.

10 THE WITNESS: I guess I
11 would just have to think about it.
12 I am not -- it's hard for me to
13 understand how the duration of the
14 contract would ever -- why a
15 fighter would ever want to -- want
16 to extend the duration all things
17 equal. It just seems like that
18 would represent a restriction on
19 that fighter's mobility. So it's
20 hard to -- it's hard to understand
21 it, I guess, from an economic
22 perspective.

23 BY MR. ISAACSON:

24 Q. You can't understand why a

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1 fighter would ever want the certainty of
2 a multiyear contract?

3 MR. CRAMER: Objection to
4 form, incomplete hypothetical.

5 THE WITNESS: Certainly not
6 the way that these contracts work.
7 I think that, you know, they work
8 as one-way ratchets, and I think
9 that you don't get paid unless you
10 fight. And so the notion that I
11 would -- that I would, all things
12 equal, want to extend the contract
13 is just -- it's not obvious to me
14 why that would be in the fighter's
15 economic incentive.

16 BY MR. ISAACSON:

17 Q. All right. But in your
18 but-for world, can you conceive of
19 fighters who would want to have contracts
20 of greater than one year?

21 MR. CRAMER: Objection to
22 form, incomplete hypothetical.

23 THE WITNESS: It's hard for
24 me to conceive -- if the standard

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1 offering was 12 months, it's hard
 2 for me to conceive -- we could
 3 perhaps come up with some
 4 hypothetical, but it's hard for me
 5 to conceive of a fighter saying,
 6 you know what, I really would like
 7 this stuff to tie me up for two
 8 years as opposed to one year. I
 9 just think that's -- that's a hard
 10 thing for me to conceive.

11 MR. CRAMER: Bill, we have
 12 been going about an hour.
 13 Whenever it's a good time to take
 14 a break, I would like to take a
 15 break.

16 MR. ISAACSON: Sure.

17 MR. CRAMER: Now?

18 MR. ISAACSON: Yeah.

19 MR. CRAMER: Okay. Let's go
 20 off the record.

21 THE VIDEOGRAPHER: The time
 22 is 11:23 a.m. We are going off
 23 the record.
 24 - - -

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1 (Off the record at this
 2 time.)
 3 - - -

4 THE VIDEOGRAPHER: The time
 5 is 11:36 a.m. We are back on the
 6 record.

7 BY MR. ISAACSON:

8 Q. Dr. Singer, if you could
 9 look at paragraph 236 of your rebuttal
 10 report. In paragraph 236 --

11 A. I am sorry. I am almost
 12 there.

13 Q. Page 173.

14 A. Okay. Got it.

22 The -- and then you go on to
 23 describe the record evidence that you
 24 are -- that you are referring to.

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1 Are you assuming that
 2 Zuffa's competitors in your but-for world
 3 would use the same level of
 4 nonrestrictive competition contract
 5 provisions as Zuffa?

6 A. Let me hear that back.

7 Q. Let me -- let me try it a
 8 different way.

9 A. Okay.

10 Q. We looked at your plausible
 11 but-for world. And in that plausible
 12 but-for world, do you assume that Zuffa's
 13 competitors have the same types of
 14 contractual provisions as Zuffa does in
 15 that -- in that world?

16 MR. CRAMER: Objection to
 17 form.

18 THE WITNESS: I think that
 19 there would be competition over
 20 each of those dimensions in the
 21 but-for world. And what -- and
 22 what this piece of record evidence
 23 is suggesting is that if Zuffa
 24 were, say, barred from

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1 incorporating a right-to-match
 2 clause in its provision, then the
 3 best response of its rivals would
 4 be to take out the right-to-match
 5 clause in their own.

6 So in that sense, they would
 7 be likely the same on that
 8 dimension but the same in a
 9 different way, in an open way, as
 10 opposed to the same in a closed
 11 way as they are today.

12 BY MR. ISAACSON:

13 Q. I know you have given the
 14 reasons for your testimony. I am just
 15 trying to understand your conclusions.

16 If Zuffa is restricted to
 17 contracts of one year or less in
 18 duration, are you assuming that its --
 19 that its competitors will also offer only
 20 contracts of one year or less in
 21 duration?

22 A. I don't -- I don't want to
 23 say that they will necessarily be
 24 identical, but I will say that Zuffa's

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MR. ISAACSON: All right.
This would be a good time to break
for lunch.

MR. CRAMER: All right.
Sure. We can go off the record.

THE VIDEOGRAPHER: The time
is 12:51 p.m. We are going off
the record.

- - -

(Off the record at this
time.)

- - -

THE VIDEOGRAPHER: The time
is 1:24 p.m. We are back on the
record.

BY MR. ISAACSON:

Q. If we could look at
paragraph 46 of your rebuttal report, in
46 you have a statement that Dr. Topel --
at the bottom of the paragraph that's on
page 37: Dr. Topel's use of price
indices for, quote, Sporting Events,
unquote, and quote, Movies, Theaters and
Concerts, end quotes, baselessly assumes

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that market power is absent in these
industries as well.

Do you have -- which markets
are you referring to for sporting events?

A. I would have to go back and
check Dr. Topel's backup. These are --
this is a proxy that he is putting
forward.

Q. All right. It was for
certain major league sports, correct?

A. I don't -- I do not recall.

Q. All right. Do you have an
opinion whether market power is present
in any of the industries for any of the
major league sports that sell tickets?

A. I think it's a fairly
reasonable assumption that the major
sports leagues have -- and their teams
have market power.

Q. All right. I just want to
make sure -- we covered this before, but
I just want to make sure we are speaking
the same language.

You did a regression

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analyses for damages and one for impact
that used the labor share of revenue as
the dependent variable to measure the
existence or exercise of monopsony power;
is that fair?

A. Can I hear that back?

- - -

(The reporter read from the
record as requested.)

- - -

THE WITNESS: So there are
two alterations that I would like
to make to that, just so that we
are precise. You said share of
revenue, and, of course, I am
using share of events revenue,
which is an important distinction.

BY MR. ISAACSON:

Q. All right.

A. The second point, of course,
is that the primary purpose of the model
was to speak to anticompetitive effects,
impact and, of course, damages, and I
think you were asking me whether I also

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used the model for -- to demonstrate
monopsony power.

Q. The existence or exercise of
monopsony power.

A. And I think that in my
monopsony section of my original report,
I made reference to the model and its
results to corroborate other evidence
that I brought forward on the issue of
monopsony power, but I think the
motivation of the model was for a
different purpose.

Q. Was -- the model was -- you
used the model to determine
anticompetitive effect, including impact
and damages?

A. Right. So you could say
that the model represents direct evidence
of Zuffa's monopsony power and that it
shows that Zuffa was able to push wages
down below competitive levels.

Q. All right. So I can
describe it as a regression analysis that
you used for damages and in one case

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<p>1 impact that used the labor share event 2 revenue as the dependent variable to 3 measure the alleged anticompetitive 4 effect, including the impact and damages, 5 of a monopsony? 6 MR. CRAMER: Objection to 7 form. 8 THE WITNESS: Very close. 9 At the very end of a monopsony, of 10 a monopsonist who engaged in 11 certain challenged conduct. 12 Remember, we are trying to isolate 13 the effect of the challenged 14 conduct. And I think as you put 15 it, it sounded as if we were 16 trying to isolate the effect 17 Zuffa's monopsony. 18 BY MR. ISAACSON: 19 Q. So the regression analysis 20 that you used for damages in one case of 21 impact used the labor share of that 22 revenue as the dependent variable to 23 measure the anticompetitive effect, 24 including the impact or damages, of</p>	<p>1 Q. So your regression analyses 2 for damages in one case for impact used 3 the labor share of event revenues as the 4 dependent variable to measure the 5 anticompetitive effect, including the 6 impact and damages, of the conduct that's 7 challenged in this case? 8 A. I think that's fair. 9 Q. Okay. All right. Now, can 10 you point me to any journal that has used 11 a regression analysis using the labor 12 share of revenue -- need not be on an 13 event basis -- the labor share revenue as 14 the dependent variable to measure the 15 anticompetitive effect, impact or damages 16 of any conduct by -- any conduct by a 17 monopsonist? 18 A. As you put it, I think there 19 are several articles in my literature 20 review on the use of labor share to study 21 monopsony in the economics industry and 22 in general, and in sports economics, in 23 particular, that use labor share as the 24 dependent variable in an econometric</p>
Page 480	Page 482
<p>1 alleged monopsonistic conduct? 2 MR. CRAMER: Objection to 3 form. 4 THE WITNESS: I don't -- I 5 don't like that one as much as the 6 one that I gave you. 7 MR. ISAACSON: I thought 8 that's what you gave me. 9 THE WITNESS: Monopsonistic 10 conduct is fairly broad, and I 11 think that we are looking at a 12 very particular type of conduct. 13 It's the challenged conduct here, 14 the exclusionary conduct. And 15 so -- 16 BY MR. ISAACSON: 17 Q. All right. I am just trying 18 to -- 19 A. Okay. 20 Q. I equated those things. 21 A. Okay. 22 Q. But I am trying to use your 23 words. 24 A. Okay.</p>	<p>1 analysis. 2 Q. Which ones would you point 3 to as having -- again, focusing on the -- 4 on the use as the dependent variable? 5 A. Sure. 6 Q. If it helps you locate 7 things, you start talking about Scully 8 around paragraph 94. I am not trying to 9 limit you but to sort of give you a 10 general location in your report. 11 A. What page? I am sorry. 12 Q. Paragraph 94, page 73. 13 MR. CRAMER: And Section C 14 starts with page 69, the section 15 where you discussed wage shares. 16 MR. ISAACSON: I am sure you 17 have to go before and after where 18 I pointed you to. 19 THE WITNESS: I think that I 20 would start with the Scully 21 article. I plan to march through 22 these one by one, if that's okay 23 with you. 24</p>

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1 BY MR. ISAACSON:

2 Q. If you would just list them.

3 A. Sure. So the Scully article
4 from '74 uses labor share as the
5 dependent variable in the context of an
6 analysis of the impact of monopsony on
7 labor share and the relaxation of certain
8 restrictions, similar to the restrictions
9 that are being challenged here.

10 In footnote 340, I list
11 articles that themselves refer back to
12 Scully's approach to estimating the
13 impact of various changes in labor
14 restrictions in professional sports that
15 also -- let me finish, please -- that
16 also study the impact using the same lens
17 that I did, which is that of labor share.

18 Q. All right. My question is
19 only who ran regressions with the labor
20 share as a dependant variable?

21 A. I would -- I would want to
22 confirm each of those. Sitting here, I
23 can't tell you that, in fact, they ran
24 regressions. Sometimes the analysis is

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1 to look at changes in labor share before
2 and after a change was made to the
3 restrictions in a sport. And I just --
4 sitting here, I can't be certain that
5 each one of them used regressions. I can
6 be certain that the dependent variable or
7 the variable of interest was labor share.

8 I would put Scully's article
9 from 2004 into this category.

10 Q. And when you say you would
11 put it in this category, are you saying
12 Scully in 2004 ran a regression with
13 labor shares of the dependent variable?

14 A. I believe so. I know
15 that -- I know that the article uses
16 labor share as the lens with which to
17 view the impact of a change in a labor
18 market restriction in the sport, and I
19 know that there is econometrics in the
20 article. I can remember, for example,
21 Scully estimating marginal revenue
22 products using econometric models. I
23 will leave it at that.

24 Q. Please -- so far, you have

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1 cited Scully '74 and 2004.

2 A. Oh, and then I cited -- in
3 footnote 340, the way that we found these
4 articles was by -- was by looking back to
5 citations to Scully where the authors
6 invoked the same lens of analysis to
7 study the impact of a -- of a change,
8 typically in a restriction, but generally
9 of labor mobility on compensation in the
10 sport among athletes.

11 Q. I think you said, sitting
12 here today, you don't know whether any of
13 the citations in footnote 340 ran a
14 regression with labor share as a
15 dependent variable?

16 A. That's correct.

17 Q. Okay. So please continue
18 with answering my question about any
19 other things you have cited where a
20 regression was run with labor share as a
21 dependent variable.

22 A. Okay. Again, I am going to
23 put Kahn in the same category. This is
24 the cite on 346 and 347. I think I had

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1 earlier cited to Kahn, but Kahn is using
2 labor share as the lens of analysis to
3 study a change to labor rules governing
4 baseball, and sitting here, I am
5 hard-pressed to tell you that he used a
6 regression, which is I think the heart of
7 the question, to control for other
8 factors that may have changed around the
9 same time.

10 But whether or not he did, I
11 think the bone of contention between me
12 and your economist was whether -- was
13 whether labor share was the appropriate
14 lens with which to study the change in a
15 labor restriction on player compensation.

16 Q. My actual question is not --

17 MR. ISAACSON: And I move to
18 strike the answer.

19 BY MR. ISAACSON:

20 Q. -- is not -- what's your
21 response to the bones of contention
22 between the economist in this case? I
23 just want you to list articles with
24 regression analyses where the dependent

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1 authoritative source of MMA Fighter
2 rankings.

3 And for that, you cite the
4 definition of Javier Vazquez?

5 Is there anything else that
6 you would point to to support that?

7 MR. CRAMER: He signed the
8 exhibits, too.

9 MR. ISAACSON: Yes, he
10 signed the deposition exhibits.

11 MR. CRAMER: Let me just
12 lodge an objection. You've had
13 many hours to depose the witness
14 on the opening report, and this
15 report was written a long time
16 ago. You should have asked this
17 question at the opening report.

18 MR. ISAACSON: No. We -- we
19 allocated our -- we were allowed
20 to allocate our hours as to how we
21 wanted and whether we wanted to.
22 So we were allowed to do both
23 reports. That was the original
24 deal.

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1 MR. CRAMER: That's not my
2 understanding. I am not going to
3 direct him not to answer.

4 MR. ISAACSON: That was
5 actually written down because I
6 was --

7 MR. CRAMER: All right.
8 Well, I am not going to direct him
9 not to answer. I am just saying
10 you are asking him to remember
11 something from a long time ago.

12 But go ahead.

13 THE WITNESS: You are asking
14 me if there are other sources of
15 authority beyond those cited in
16 footnote 300 --

17 MR. ISAACSON: Yes.

18 THE WITNESS: -- which
19 includes these exhibits, 42, 43
20 and 44, as to whether Zuffa
21 considers the Fight Matrix data to
22 be authoritative?

23 BY MR. ISAACSON:

24 Q. Yes.

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1 A. Sitting here, I am not going
2 to be able to recall others, but it's
3 certainly conceivable that throughout my
4 report I have mentioned others.

5 Q. Okay. In your rebuttal
6 report, paragraph 124?

7 A. Okay. I have got it.

8 Q. Right. So there is a
9 discussion of coefficients that were not
10 statistically significant. And you say
11 that's not at all surprising that some
12 are not individually statistically
13 insignificant, and you explain why.

14 A. I think you said -- oh,
15 never mind. Just keep -- keep going. I
16 am sorry.

17 Q. All right. And your
18 conclusion is it's not at all surprising
19 that coefficients of some are
20 individually statistically significant,
21 but this does not apply that these
22 control variables are not collectively
23 significant.

24 A. You almost said it right,

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1 but I think you used significant when you
2 meant to say insignificant. It's not
3 surprising that some are --

4 Q. You are right. You are
5 right. Let me rephrase.

6 A. -- individually -- I will
7 finish -- individually significant when
8 you consider the fact that they are
9 colinear with other -- a myriad of other
10 right-hand side variables in the
11 regression.

12 Q. Let me rephrase my question.
13 In your opinion, it's not at all
14 surprising that coefficients on some are
15 individually statistically insignificant,
16 but that does not apply to control
17 variables are not collectively
18 significant?

19 A. Well, let me hear the end of
20 that.

21 - - -

22 (The reporter read from the
23 record as requested.)

24 - - -

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1 THE WITNESS: I don't know
2 if that -- if that was phrased as
3 a question. I can't -- I can't
4 hear the question. I can't make
5 out the question.

6 No, I hear it, I hear it. I
7 just can't figure out what the
8 question is.

9 BY MR. ISAACSON:

10 Q. That's your opinion.

11 A. But I think we have a common
12 understanding of what -- of what
13 happened. But --

14 Q. In your opinion, it's not
15 surprising that coefficients and some of
16 your coefficients in your regression are
17 individually statistically insignificant,
18 that does not apply that control
19 variables are not collectively
20 significant?

21 A. If I could put it in my own
22 words, it's not surprising that -- that
23 some of the individual variables are --
24 are statistically insignificant in light

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1 of the fact that there is collinearity
2 among many of the explanatory variables
3 in the model.

4 Q. You looked at the question
5 in this case how do earnings. How do --
6 how does the labor share of revenue of
7 fighters compare to what they would have
8 earned in the competitive market; is that
9 fair?

10 A. I would like to say how it
11 compares to a but-for world in which the
12 challenged conduct were absent or a
13 but-for world in which the foreclosure
14 share was at tolerable levels, 30 percent
15 or below.

16 Q. Okay. So the relevant
17 question in this -- in this case to you
18 is what is the labor share of revenue to
19 fighters in a world in which the
20 foreclosure share is at what you call
21 tolerable levels, 30 percent or below?

22 A. Correct.

23 Q. Okay. And do you think it's
24 an incorrect question in this case, how

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1 do the earnings of fighters compare to
2 what they would have earned in a
3 competitive market?

4 A. I would certainly relate it
5 to what I did. I think what we are
6 quibbling over is the end of your
7 sentence, which is a competitive market.
8 I want to allow for the possibility that
9 even when the foreclosure share gets as
10 low as 30 percent or 20 percent, there
11 still could be some residual monopsony
12 power enjoyed by Zuffa.

13 Q. All right. So do you think
14 you looked at the question of how do the
15 earnings of fighters compare to what they
16 would have earned in a market with
17 foreclosure shares of 30 percent or
18 lower?

19 A. Sure.

20 Q. Okay.

21 MR. ISAACSON: If we can
22 mark this as whatever the next
23 exhibit is. We don't have many,
24 but I have already lost track.

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1 MR. CRAMER: I think we are
2 up to 9.

3 - - -

4 (Singer-9 marked for
5 identification at this time.)
6 - - -

7 BY MR. ISAACSON:

8 Q. Exhibit-9 is an excerpt from
9 a Guide to Econometrics, Fifth Edition,
10 by Peter Kennedy.

11 Are you familiar with this
12 work?

13 A. Yes.

14 Q. Do you consider this a
15 reliable work in the field of
16 econometrics?

17 A. Sure.

18 Q. If you look at page 397,
19 there is a section called Getting the
20 Wrong Sign.

21 A. Yes.

22 Q. And it says: A remarkably
23 common occurrence when doing applied work
24 is to run an a priori favorite

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1 specification and discover a, quote/end
2 quote, wrong sign. Rather than
3 considering this a disaster, a researcher
4 should consider it a blessing -- this
5 result is a friendly message that some
6 detective work needs to be done -- there
7 is undoubtedly some shortcoming in one's
8 theory, data, specification or estimation
9 procedure -- theory, data, specification
10 or estimation procedure.

11 And then he goes on to talk
12 about what you should do for some
13 additional detective work.

14 Is that something you agree
15 with?

16 A. Yes.

17 Q. Okay. And --

18 A. Just to put this in context,
19 your expert is jumping up and down and
20 saying that there is the wrong sign, it
21 must be a --

22 Q. Sir, there is no question.

23 A. -- a specification error.

24 Q. There is no question

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1 pending.

2 Now, then he goes on to list
3 ten reasons for getting the wrong signs,
4 potential reasons.

5 Do you see No. 1 is omitted
6 variable?

7 A. Yes.

8 Q. All right. And then after
9 that, there is high variances?

10 A. Do you want me to turn to
11 3 -- the next page?

12 Q. 398, right. It's 398, yes.
13 It's actually --

14 A. This may have been
15 mis-stapled, but I can't -- I can't see
16 --

17 Q. It's actually just the way
18 you folded it. If you look at page --
19 you were on page 397.

20 A. Correct.

21 Q. Now you are on page 398.

22 A. I know. I am looking to how
23 to get to 398, and I don't -- I don't see
24 it. My next thing is 392, 393.

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1 MR. CRAMER: Go in the other
2 direction.

3 THE WITNESS: Okay. I am at
4 398 now.

5 MR. CRAMER: You owe me one.

6 THE WITNESS: Okay.

7 BY MR. ISAACSON:

8 Q. Okay. And so it lists
9 omitted variable, high variances,
10 selection bias, a Latin phrase, ceteris
11 paribus confusion, data
12 definitions/measurements, outliers,
13 interaction terms, specification error,
14 simultaneity/lack of identification and
15 bad instrument.

16 Now, when you ran your
17 regression, did you believe any of the
18 signs in your variables appeared to be,
19 quote, wrong in the sense that
20 Mr. Kennedy is discussing?

21 A. No, that's not something
22 that would concern me.

23 Q. All right. Did you analyze
24 whether any of these ten factors were

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1 present determined whether -- as an
2 explanation for the signs that you were
3 getting on your coefficients?

4 A. Well, now I have been forced
5 to analyze multicollinearity as an
6 explanation for why we would get the
7 wrong expected sign on two of the
8 variables. Same thing happened, of
9 course, in Dr. Topel's model.

10 But this shouldn't change
11 any inferences for what's important here,
12 which is getting the best unbiased
13 estimate of the foreclosure share on the
14 wage share.

15 Q. So -- just so I understand,
16 after you got the results from your
17 coefficients, you looked at the issue of
18 collinearity.

19 Did you analyze any of the
20 other ten factors as explanations for the
21 signs you were getting on your
22 coefficients?

23 A. Well, I was certainly
24 conscientious, in fact, more

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1 Q. All right.

2 MR. ISAACSON: Thank you. I
3 don't have any more questions.

4 MR. CRAMER: Very good.

5 THE VIDEOGRAPHER: Okay.

6 The time is 5:12 p.m. This is the
7 end of Dr. Hal Singer's
8 deposition. We are going off the
9 record.

10 - - -

11 (The deposition concluded at
12 5:12 p.m.)

13 - - -

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1 CERTIFICATE

2
3
4 I HEREBY CERTIFY that the
5 witness was duly sworn by me and that
6 the deposition is a true record of
7 the testimony given by the witness.
8
9
10
11
12

13 _____
14 Lori A. Zabielski
15 Registered Professional Reporter
16 CaseViewNet Reporter
17 Dated: January 24, 2018
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23 (The foregoing certification
24 of this transcript does not apply to any
reproduction of the same by any means,
unless under the direct control and/or
supervision of the certifying reporter.)

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1 INSTRUCTIONS TO WITNESS

2
3 Please read your deposition over
4 carefully and make any necessary
5 corrections. You should state the reason
6 in the appropriate space on the errata
7 sheet for any corrections that are made.

8 After doing so, please sign the
9 errata sheet and date it.

10 You are signing same subject to the
11 changes you have noted on the errata
12 sheet, which will be attached to your
13 deposition.

14 It is imperative that you return
15 the original errata sheet to the deposing
16 attorney within thirty (30) days of
17 receipt of the deposition transcript by
18 you. If you fail to do so, the
19 deposition transcript may be deemed to be
20 accurate and may be used in court.
21
22
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2 E R R A T A

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ACKNOWLEDGEMENT OF DEPONENT

I, _____, do
 hereby certify that I have read the
 foregoing pages, 338-652 PGS, and that
 the same is a correct transcription of
 the answers given by me to the questions
 therein propounded, except for the
 correction or changes in form or
 substance, if any, noted in the attached
 Errata Sheet.

 HAL J. SINGER, Ph.D. DATE

Subscribed and sworn
 to before me this
 _____ day of _____, 20____.

My commission expires:

_____.

 Notary Public

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LAWYER'S NOTES
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